

REMARKS

Original claims 1-13 have been cancelled without prejudice to pursue in a later continuation application, and have been replaced with new claims 14-43 to more clearly define the scope of the invention.

Claim Rejections Under 35 U.S.C. 102

The Examiner rejected original claims 1 and 5 as being anticipated by U.S. Patent 5,269,758 to Taheri. With this amendment, claims 1 and 5, along with all other previously pending claims, have been cancelled. New claims 14-43 have been added to more precisely define various aspects of the invention and to address the arguments presented by the Examiner. In light of these new claims, Applicant respectfully traverses the U.S.C § 102 rejection for at least the reason that Taheri fails to disclose each and every recited feature in each of new claims 14-43.

With respect to the rejection under section 102, Applicant notes that Taheri fails to disclose or teach, explicitly or inherently, each of the features in the currently pending claims. For instance, Taheri describes the exchange surface as “inflatable” (Column 1, paragraph 4), and “flexible” (Column 3, Paragraph 5). In terms of specific material properties, Taheri states that this feature “resembles a tubular sleeve. This may be formed of a thin walled tubular plastic material, or some other functionally-equivalent material.” (Column 3, Paragraph 4). Taheri does not disclose the concept of variable compliant materials as recited in the currently pending claims.

In addition, Taheri states that “the pump may be operated to circulate heated fluid through the outer and inner chambers. At the same time, the pump may be operated to pressurize

said fluid so as to cause the flexible portion to bow outwardly to an inflated position (as shown in Figs. 1 and 2) and may be further caused to pulsate pressure of such fluid to cause flexible wall portion 43 to oscillate, thereby preventing blood from clotting on the flexible portion.” (Column 4, Paragraph 3). Taheri does not disclose the means by which pressure oscillations are achieved and does not disclose the magnitude and frequency of the resulting pressure oscillations. Furthermore, it is important note that the sole purpose of the pressure oscillations as indicated by Taheri is “preventing blood from clotting on the flexible portion” which is in contrast to one of the aspects of the claims as currently presented.

Finally, Taheri does not disclose 1) a feature that enables catheter outer diameter size reduction, 2) a means to ensure all heat exchange surfaces are aligned inside a blood vessel, 3) a method to infuse working fluid, or 4) a method to carry simultaneous heat and mass transfer through a single exchange surface.

In summary, Taheri fails to disclose each of the limitations of new claims 14-43. As such, Applicant respectfully requests that the rejection under 35 U.S.C. § 102 be withdrawn.

Claim Rejections Under 35 U.S.C. 103

The Examiner has rejected original claims 2-4 and 6-13 as being unpatentable over Taheri, in view of Dobak, III et al. (US6,096,068), Pham et al., (US6,299,599), and Saab (US5,624,392). Applicant respectfully traverses the 35 U.S.C. §103 rejections as none of the cited references, including Leone et al. (US5,885,244) and Leschinsky et al. (US6,241,706), either individually or combined, disclose all of the elements of new claims 14-43. Furthermore, none of these references teach or suggest that they be combined and the Examiner has provide no teaching, motivation or suggestion as to why these references should be combined as he is

required to do under applicable MPEP provisions. Applicant also submits that each of these references are distinct in their teachings and are not properly combined in the Examiner's 103 rejection.

For the same reasons cited above with respect to the Examiner's rejection under section 102, none of the references cited by the Examiner taken alone or in combination disclose, teach or suggest each of the elements of new claims 14-43. As such, Applicant respectfully requests that the rejection under 35 U.S.C. 103 be withdrawn.

Conclusion :

New claims 14-43 have been submitted to more clearly define various aspects of the invention over the prior art. None of the references cited by the Examiner, taken alone or in combination, disclose each of the elements of independent claims 14, 32, 38, 43 or any of the dependent claims currently pending in the application. As such, Application respectfully requests that the rejections be withdrawn and the application proceed to allowance.

The Examiner is encouraged to contact the undersigned attorney if there are questions and in order to expedite the allowance of this application.


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